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09432503 - GAU: 1635

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PATENT  
Attorney Docket No.: 015389-002611US  
Client Reference No.: 018/063C

On February 25, 2003

TOWNSEND and TOWNSEND and CREW LLP

By Maisie C. Livengood  
Maisie C. Livengood



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Geron Corporation

Application No.: 09/432,503

Filed: November 2, 1999

For: HUMAN TELOMERASE  
CATALYTIC SUBUNIT

Examiner: Peter P. Tung

Art Unit: 1652

SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER 37  
CFR §1.97 and §1.98

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. With the exception of references AV, AW and AX, copies of which are enclosed, copies of the references can be found in U.S. Patent Application 08/912,951 filed August 14, 1997 (now U.S. Patent 6,475,789, issued November 5, 2002).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

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Geron Corporation

PATENT

Application No.: 09/432,503

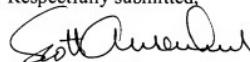
Page 2

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Scott L. Ausenhus  
Reg. No. 42,271

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 3 of 12

**Complete if Known**

Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et. al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

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**U.S. PATENT DOCUMENTS**

Examiner	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
AA	08/751,189		11-15-96	Harrington, et al.	
AB	60/038,750		02-20-1997	Counter, et al.	
AC	3,817,837		06-18-1974	Tanenholz et al.	
AD	3,850,752		11-26-1974	Schuurs et al.	
AE	3,939,350		02-17-1976	Kronick et al.	
AF	3,996,345		12-01-1976	Ullman et al.	
AG	4,275,149		06-23-1981	Litman et al.	
AH	4,277,437		07-07-1981	Maggio	
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AJ	4,683,195		07-28-1987	Mullis et al.	
AK	4,683,202		07-28-1987	Mullis	
AL	4,816,567		03-28-1989	Cabilly et al.	
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AO	5,583,016		12-10-1996	Villeponteau et al.	
AP	5,747,317		05-05-1998	Cao	
AQ	5,770,422		06-23-1998	Collins	
AR	6,093,809		07-25-2000	Cech, et al.	
AS	6,258,535 - B1		07-10-2001	Villeponteau et al.	
AT	6,261,556 - B1		07-17-2001	Weinrich et al.	
AU	6,261,836 - B1		07-17-2001	Cech et al.	
AV	6,093,809		07-25-2000	Cech et al.	
AW	6,166,178		12/26-2000	Cech et al.	
AX	6,475,789 B1		11-05-2002	Cech et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials <sup>3</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
AY		JP	0915475-A			06-17-97	
AZ		PCT	WO 84/03564			09-13-84	
BA		PCT	WO 95/13382			05-18-95	
BB		PCT	WO 96/01835			01-25-96	
BC		PCT	WO 96/12811			05-02-96	
BD		PCT	WO 96/19580			06-27-96	
BE		PCT	WO 96/40868			12-19-96	

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**INFORMATION DISCLOSURE  
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Sheet

4 of 12

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Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et. al.
Art Unit	1652
Examiner Name	Peter P. Tung

Attorney Docket Number 015389-002611US

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BF	PCT	WO 98/01542			01-15-98		
BG	PCT	WO 98/01543			01-15-98		
BH	PCT	WO 98/07838			03-05-98		
BI	PCT	WO 98/08938			02-26-98		
BJ	PCT	WO 98/21343			05-22-98		
BK	PCT	WO 98/37181			08-27-98		
BL	PCT	WO 98/45450			10-15-98		
BM	PCT	WO98/59040			12/30/98		
BN	PCT	WO99/01560			01/14/99		

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Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

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**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

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BO	1994 Genome Issue of <i>Science</i> (265:1981f)		
BP	Anderson and Young, "Quantitative Filter Hybridization" in <i>Nucleic Acid Hybridization</i> pp73-111 (1985)		
BQ	Ausubel et al.; (1989); Current Protocols in Molecular Biology; pp 5.1-5.11, 16.1-16.3 and 16.9-16.20; John Wiley & Sons, New York NY		
BR	Autexier et al., "Reconstitution of human telomerase activity and identification of a minimal functional region of the human telomerase RNA," (1996) <i>EMBO J.</i> , 15:5928		
BS	Auxier and Greider, "Functional reconstitution of wild-type and mutant <i>Tetrahymena</i> telomerase," (1994) <i>Genes Develop.</i> , 8:563		
BT	Berger and Kimmel, <i>Guide to Molecular Cloning Techniques</i> ; (1987); Meth. Enzymol.; vol. 152; pp 305-389; Academic Press, San Diego CA		
BU	Blessman et al., "Addition of Telomere-Associated HeT DNA Sequences "Heals" Broken Chromosome Ends in <i>Drosophila</i> ," (1990) <i>Cell</i> , 61:663		
BV	Bitter et al., "Expression and secretion vectors for yeast," Meth Enzymol., (1987) 153:516		
BW	Blackburn and Chicu, "Non-nucleosomal packaging of a tandemly repeated DNA sequence at termini of extrachromosomal DNA coding for rRNA in <i>Tetrahymena</i> ," (1981) Proc. Natl. Acad. Sci., 78:2263		
BX	Blackburn and Gall, "A tandemly repeated sequence at the termini of the extrachromosomal ribosomal RNA genes in <i>Tetrahymena</i> ," (1978) J. Mol. Biol., 120:33		
BY	Blackburn, "Telomerases," (1992) <i>Annu. Rev. Biochem.</i> , 61:113		
	Bodnar et al., "Extension of Life-Span by Introduction of Telomerase into Normal Human Cells," (1998) <i>Science</i> , 279:349		
	Bradford, "A Rapid and Sensitive method for the Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-Dye Binding," (1976) <i>Anal. Biochem.</i> , 72:248		
	Braunstein et al., "Transcriptional silencing in yeast is associated with reduced nucleosome acetylation," (1993) <i>Genes Develop.</i> , 7:592		

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Filing Date	November 2, 1999	
First Named Inventor	Cech, Thomas R., et al.	
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		Calvio et al., "Identification of hnRNP P2 as TLS/FUS using electrospray mass spectrometry," (1995) RNA, 1:724	
		Caruthers et al., "New chemical methods for synthesizing polynucleotides," (1980) Nucleic Acids Res. Symp. Ser., 215-223	
		Chan and Tye, "Organization of DNA sequences and replication origins at yeast telomeres," (1983) Cell, 33:563	
		Colbere-Garapin et al., "A new dominant hybrid selective marker for higher eukaryotic cells," (1981) J. Mol. Biol., 150:1	
		Cole et al., "The EBV-hybridoma technique and its application to human lung cancer," Monoclonal Antibodies and Cancer Therapy, Alan R. Liss Inc, New York NY 77-96 (1985)	
		Collins et al., "Purification of Tetrahymena telomerase and cloning of genes encoding the two protein components of the enzyme," (1995) Cell, 81:677	
		Conrad et al., "RAP1 protein interacts with yeast telomeres in vivo: Overproduction alters telomere structure and decreases chromosome stability," (1990) Cell, 63:739	
		Coombs, Dictionary of Biotechnology, (1994); pp. 101-102, 263, 301 and 332; Stockton Press, New York NY	
		Cote et al., "Generation of human monoclonal antibodies reactive with cellular antigens," (1983) Proc. Natl. Acad. Sci., 80:2026	
		Counter et al., "The catalytic subunit of yeast telomerase," (1997) Proc. Natl. Acad. Sci., 94:9202	
		Counter et al., (1994) Proc. Natl. Acad. Sci., 91:2900	
		Creighton; Proteins, Structures and Molecular Principles; (1983); pp. 1-60; WH Freeman and Co; New York, NY	
		Dieffenbach and Dveksler; PCR Primer, a Laboratory Manual; (1995) pp. 131-156, 453-462 and 507-580; Cold Spring Harbor Press, Plainview NY	
		Duplaa et al., "Quantitative analysis of polymerase chain reaction products using biotinylated dUTP incorporation," (1993) Anal. Biochem., 212:229	

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		Fang et al., "Oxytricha telomere-binding protein: separable DNA-binding and dimerization domains of the $\alpha$ -subunit," <i>Genes Develop.</i> , 7:870 (1993) and Gray et al., (1991) <i>Cell</i> 67:807	
		Feng et al., "The RNA Component of Human Telomerase," (1995) <i>Science</i> , 269:1236	
		GenBank Accession No. AA281296; April 2, 1997	
		Genbank accession no. AA299878; April 18, 1997	
		Genbank accession no. AA311750; April 19, 1997	
		Gilley et al., "Altering specific telomerase RNA template residues affects active site function," (1995) <i>Genes Develop.</i> , 9:2214	
		Gottschling and Cech, "Chromatin Structure of the Molecular Ends of Oxytricha Mononuclear DNA: Phased Nucleosomes and a Telomeric Complex," (1984) <i>Cell</i> , 38:501	
		Gottschling and Zekian, "Telomere proteins: specific recognition and protection of the natural termini of Oxytricha macronuclear DNA," (1986) <i>Cell</i> 47:195	
		Grant et al., <i>Meth Enzymol.</i> , (1987) 153:516-544	
		Greenwood et al., "Phylogenetic relationships within the class oligohymenophorea, phylum ciliophora, inferred from the complete small subunit rRNA gene sequences of <i>Colpodium campylum</i> , <i>Glaucostoma chattoni</i> , and <i>Opisthotrochta hemisphaerium</i> ," (1991) <i>J. Mol. Evol.</i> , 3:163	
		Greider and Blackburn, "A telomeric sequence in the RNA of Tetrahymena telomerase required for telomere repeat synthesis," (1989) <i>Nature</i> , 337:331	
		Greider and Blackburn, "Identification of a specific telomere terminal transferase activity in Tetrahymena extracts," (1985) <i>Cell</i> , 43:405	
		Greider, "Telomerase is processive," (1991) <i>Mol. Cell. Biol.</i> , 11:4572	
		Greider, "Telomere Length Regulation," (1996) <i>Ann. Rev. Biochem.</i> , 65:337	

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		Hampton et al.; <i>Serological Methods a Laboratory Manual</i> ; (1990); pp. 33-86, 179-286; APS Press, St Paul MN	
		Harrington et al., "A Mammalian Telomerase-Associated Protein," (1997) <i>Science</i> , 275:973	
		Harrington et al., "Human telomerase contains evolutionarily conserved catalytic and structural subunits," (1997) <i>Genes Dev.</i> , 11:3109	
		Hartman and Mulligan, "Two dominant-acting selectable markers for gene transfer studies in mammalian cells," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:8047	
		Henderson and Blackburn, "An overhanging 3' terminus is a conserved feature of telomeres," (1989) <i>Mol Cell. Biol.</i> , 9:345	
		Horn et al., "Synthesis of oligonucleotides on cellulose. Part II: design and synthetic strategy to the synthesis of 22-oligodeoxynucleotides coding for gastric inhibitory polypeptide (GIP)," (1980) <i>Nucleic Acids Res. Symp. Ser.</i> , 225-232	
		Hudson et al., "An STS-based map of the human genome," (1995) <i>Science</i> , 270:1945	
		Huse et al., "Generation of a large combinatorial library of the immunoglobulin repertoire in phage lambda," (1989) <i>Science</i> , 246:1275	
		Johnson et al., (1991) <i>Mol. Cell Biol.</i> 11:1	
		Kilian et al., "Isolation of a candidate human telomerase catalytic subunit gene, which reveals complex splicing patterns in different cell types," (1997) <i>Hum. Mol. Genet.</i> , 6:2011	
		Kipling and Cooke, "Hypervariable ultra-long telomeres in mice," (1990) <i>Nature</i> 347:400	
		Klobutcher et al., "All gene-sized DNA molecules in four species of hypotrichs have the same terminal sequence and an unusual 3' terminus," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:3015	
		Koehler and Milstein, "Continuous cultures of fused cells secreting antibody of predefined specificity," (1975) <i>Nature</i> 256:495	
		Kosbor et al., "The production of monoclonal antibodies from human lymphocytes," (1983) <i>Immunol. Today</i> 4:72	

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

9

of

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**Complete if Known**

Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Lamond and Sproat; (1994) "Isolation and Characterization of Ribonucleoprotein Complexes." In <i>RNA Processing: A Practical Approach</i> ; (Higgins, S.J. and Hawes, B.D. Eds.), Volume 1; pp103-140	T <sup>2</sup>
	Lamond et al., "Probing the structure and function of U2 snRNP with antisense oligonucleotides made of 2'-OMe RNA," (1989) <i>Cell</i> , 58:383	
	Lendvai et al., "Senescence mutants of <i>Saccharomyces cerevisiae</i> with a defect in telomere replication identify three additional EST genes," (1996) <i>Genetics</i> , 144	
	Lingler et al., "Purification of telomerase from <i>Euploites adelculatus</i> : requirement of a primer 3' overhang," (1996) <i>Proc. Natl. Acad. Sci.</i> , 93:10712	
	Lingler et al., "Reverse transcriptase motifs in the catalytic subunit of telomerase," (1997) <i>Science</i> , 276:561	
	Lingner et al., "Telomerase RNAs of different ciliates have a common secondary structure and a permuted template," (1994) <i>Genes Develop.</i> , 8:1984	
	Lingner et al., "Telomerase and DNA End Replication: No Longer a Lagging Strand Problem?," (1995) <i>Science</i> 269:1533	
	Lowy et al., "Isolation of transforming DNA: Cloning the hamster aprt gene," (1980) <i>Cell</i> , 22:817	
	Lustig and Petes, Identification of yeast mutants with altered telomere structure," (1986) <i>Proc. Natl. Acad. Sci.</i> , 83:1398	
	Maddox et al., "Elevated serum levels in human pregnancy of a molecule immunochemically similar to eosinophil granule major basic protein," (1983) <i>J. Exp. Med.</i> , 158:1211	
	Makarov et al., "Nucleosomal Organization of Telomere-Specific Chromatin in Rat," (1993) <i>Cell</i> , 73:775	
	McEachern and Blackburn, "runaway telomere elongation caused by telomerase RNA gene mutation," (1995) <i>Nature</i> , 376:403	
	Melby et al., "Quantitative measurement of human cytokine gene expression by polymerase chain reaction," (1993) <i>J. Immunol. Meth.</i> , 159:235	
	Merrifield, "Solid phase peptide synthesis. I. The synthesis of a tetrapeptide," (1963) <i>J. Am. Chem. Soc.</i> , 85:2149	

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First Named Inventor	Cech, Thomas R., et. al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

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		Meyerson et al., "HEST2, the Putative Human Telomerase Catalytic Subunit Gene, Is Up-Regulated in Tumor Cells and during Immortalization," (1997) <i>Cell</i> , 90:785
		Murray, <i>In McGraw Hill Yearbook of Science and Technology</i> , (1992) McGraw Hill, New York NY, pp 191-196
		Nakamura et al., "Telomerase Catalytic Subunit Homologs from Fission Yeast and Human," (1997) <i>Science</i> , 277:955
		Nakayama et al., "TLP1: A Gene Encoding a Protein Component of Mammalian Telomerase Is a Novel Member of WD Repeats Family," (1997) <i>Cell</i> , 88:875
		Nielsen et al., (1993) "Peptide nucleic acids (PNAs): Potential antisense and anti-gene agents," <i>Anticancer Drug Des.</i> , 8:53
		Oka et al., "Inverted terminal repeat sequence in the macronuclear DNA of <i>Styloynchia postulata</i> ," (1980) <i>Gene</i> , 10:301
		Olovnikov, "A theory of marginotomy: The incomplete copying of template margin in enzymic synthesis of polynucleotides and biological significance of the phenomenon," (1973) <i>J. Theor. Biol.</i> , 41:181
		Orlandi et al., "Cloning immunoglobulin variable domains for expression by the polymerase chain reaction," (1989) <i>Proc. Natl. Acad. Sci.</i> , 86:3833
		Prescott, "The DNA of ciliated protozoa," (1994) <i>Microbiol. Rev.</i> , 58:233
		Price, (1993) <i>Blood Rev.</i> , 7:127
		Rhodes et al., "Transformation of maize by electroporation of embryos," (1995) <i>Meth. Mol. Biol.</i> , 55:121
		Roberge et al., "A strategy for a convergent synthesis of N-linked glycopeptides on a solid support," (1995) <i>Science</i> , 269:202
		Romero and Blackburn, "A conserved secondary structure for telomerase RNA," (1991) <i>Cell</i> , 67:343
		Sambrook et al., Molecular Cloning, A Laboratory Manual; (1989); pp. 8.1-8.6 and 16.1-17.44; Cold Spring Harbor Press, Plainview NY

Examiner Signature	Date Considered
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PTO/SB/08B (10-01)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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**Complete if Known**

Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	Sandell et al., "Transcription of yeast telomere alleviates telomere position effect without affecting chromosome stability," (1994) Proc. Natl. Acad. Sci., 91:12061		
	Sanger et al., "DNA sequencing with chain-terminating inhibitors," (1977) Proc. Natl. Acad. Sci., 74:5463		
	Scharf et al., "Heat stress promoters and transcription factors," (1994) Result Probl. Cell Differ. 20:125		
	Shampay and Blackburn, "Generation of telomere-length heterogeneity in <i>Saccharomyces cerevisiae</i> ," (1988) Proc. Natl. Acad. Sci., 85:534		
	Sheen and Lewis, "Transposition of the LINE-like retrotransposon TART to <i>Drosophila</i> chromosome termini," (1994) Proc. Natl. Acad. Sci., 91:12510		
	Singer and Gottschling, "TLC1: Template RNA Component of <i>Saccharomyces cerevisiae</i> Telomerase," (1994) Science 268:404		
	Starling et al., "Extensive telomere repeat arrays in mouse are hypervariable," (1990) Nucleic Acids Res., 18:6881		
	Swanton et al., "Arrangement of Coding and Non-coding Sequences in the DNA Molecules Coding for rRNAs in <i>Oxytricha</i> sp.," (1980) Chromosoma 77:203		
	Tommerup et al., "Unusual chromatin in human telomeres," (1994) Mol. Cell. Biol., 14:5777		
	Trask, "Fluorescence in situ hybridization: application in cytogenetics and gene mapping," (1991) Trends Genet., 7:149		
	Verma et al., "Human Chromosomes: A Manual of Basic Techniques," (1988); pp. 4-30, 152-190; Pergamon Press, New York NY		
	Watson, "Origin of concatemeric T7 DNA," (1972) Nature New Biol., 239:197		
	Weinrich et al., "Reconstitution of human telomerase with the template RNA component hTR and the catalytic protein subunit hTRT," (1997) Nat. Genet., 17(4):498-502		
	Wellinger et al., "Origin activation and formation of single-strand TG <sub>n</sub> tails occur sequentially in late S phase on a Yeast linear plasmid," (1993) Mol. Cell. Biol., 13:4057		

Examiner Signature	Date Considered
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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of

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**Complete if Known**

Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R., et. al.
Art Unit	1652
Examiner Name	Peter P. Tung
Attorney Docket Number	015389-002611US

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Wellinger et al., "Saccharomyces Telomeres Acquire Single-Strand TG <sub>n</sub> Tails Late in S Phase," (1993) Cell 72:51	
		Whitehead Institute/MIT Center for Genome Research, Genetic Map of the Mouse, Database Release 10, April 28, 1995	
		Wigler et al., "Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells," (1977) Cell, 11:223	
		Wigler et al., "Transformation of mammalian cells with an amplifiable dominant-acting gene," (1980) Proc. Natl. Acad. Sci., 77:3567	
		Winter and Milstein, "Man-made antibodies," (1991) Nature, 349:293	
		Wright et al., "Saccharomyces telomeres assume a non-nucleosomal chromatin structure," (1992) Genes Develop., 6:197	
		Yu et al., "In vivo alteration of telomere sequences and senescence caused by mutated Tetrahymena telomerase RNAs," (1990) Nature, 344:126	
		Zahler and Prescott, "Telomere terminal transferase activity in the hypotrichous ciliate Oxytricha nova and a model for replication of the ends of linear DNA molecules," (1988) Nucleic Acids Res., 16:6953	
		Zakian, Telomeres: Beginning to Understand the End," (1995) Science 270:1601	
		Zaug et al., "Catalysis of RNA Cleavage by a Ribozyme Derived from the Group I Intron of Anabaena Pre-tRNA <sup>Leu</sup> ," (1996) Nucleic Acids Research; 24:523-533	

Examiner Signature	/Jon Eric Angell/	Date Considered	03/26/2009
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# TRANSMITTAL FORM

(To be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/432,503
Filing Date	November 2, 1999
First Named Inventor	Cech, Thomas R.
Art Unit	1652
Examiner Name	Delia M. Ramirez
Total Number of Pages in This Submission	1
Attorney Docket Number	015389-002611US

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## ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s) (103 pages formal drawings)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
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<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	Return Postcard; Amendment - Submission of Substitute Specification; Substitute Specification; Marked-up version of specification; original Appointment of Associate Attorney (submitted by facsimile on 12/2/02)
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<input type="checkbox"/> Certified Copy of Priority Document(s)		
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
	Remarks	The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	Townsend and Townsend and Crew LLP	
	Scott L. Ausenhus	Reg. No. 42,271
Signature		
Date	February 25, 2003	

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# FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 180)

## METHOD OF PAYMENT (check all that apply)

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Deposit Account Name  
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- Charge fee(s) indicated below     Credit any overpayments  
 Charge any additional fee(s) during the pendency of this application  
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## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee (\$)	Fee Description	Fee Paid
1001	750	2001	375			Utility filing fee	
1002	330	2002	165			Design filing fee	
1003	520	2003	260			Plant filing fee	
1004	750	2004	375			Reissue filing fee	
1005	160	2005	80			Provisional filing fee	

SUBTOTAL (1) (\$ 180)

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims		Fees from below	Fee Paid
			**	X	=	

## Large Entity Small Entity

Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee Description
1202	18	2202	9
1201	64	2201	42
1203	280	2203	140
1204	84	2204	42
1205	18	2205	9

SUBTOTAL (2) (\$ 180)

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## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee (\$)	Fee Description	Fee Paid
		1051	130	2051	65	Surcharge - late filing fee or oath	
		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
		1053	130	1053	130	Non-English specification	
		1812	2,520	1812	2,520	For filing a request for reexamination	
		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
		1251	110	2251	55	Extension for reply within first month	
		1252	410	2252	205	Extension for reply within second month	
		1253	930	2253	465	Extension for reply within third month	
		1254	1,450	2254	725	Extension for reply within fourth month	
		1255	1,970	2255	985	Extension for reply within fifth month	
		1401	320	2401	160	Notice of Appeal	
		1402	320	2402	160	Filing a brief in support of an appeal	
		1403	280	2403	140	Request for oral hearing	
		1451	1,510	1451	1,510	Petition to institute a public use proceeding	
		1452	110	2452	55	Petition to revoke - unavoidable	
		1453	1,300	2453	650	Petition to revoke - unintentional	
		1501	1,300	2501	650	Utility issue fee (or reissue)	
		1502	470	2502	235	Design issue fee	
		1503	630	2503	315	Plant issue fee	
		1460	130	1460	130	Petitions to the Commissioner	
		1807	50	1807	50	Petitions related to provisional applications	
		1806	180	1806	180	Submission of Information Disclosure Stmt	180
		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
		1809	750	2809	375*	Filing a submission after final rejection (37 CFR § 1.129(a))	
		1810	750	2810	375	For each additional invention to be examined (37 CFR § 1.129(b))	
		1801	750	2801	375	Request for Continued Examination (RCE)	
		1802	900	1802	900	Request for expedited examination of a design application	
		Other fee (specify)					

\*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$ 180)

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Scott L. Ausenhaus	Registration No. (Attorney/Agent)	42,271	Telephone	303-571-4000
Signature					
Date	February 25, 2003				

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